

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:**

1. An tie line adapter for use with a first communication system and a second communication system, said first communication system having a tie line with a first characteristic and said second communication system having a tie line with a second characteristic, said tie line adapter having a first controller for controlling said first characteristic, a second controller for controlling said second characteristic, wherein said first characteristic and said second characteristic are adjusted to substantially match each other to allow communication between said first communication system and second communication system.
2. The line adapter of claim 1, wherein said communication between said first communication system and second communication system is bi-directional.
3. The line adapter of claim 1, wherein said communication between said first communication system and second communication system is uni-directional.
4. The line adapter of claim 1, wherein said first characteristic and said second characteristic include a plurality of input parameters and output parameters.
5. The line adapter of claim 4, wherein said first controller includes a mode select switch for selectively choosing a value of at least one of a plurality of parameters of said first tie line characteristics to cause said value of said at least one of a plurality of parameters to substantially match a value of said at least one of a plurality of parameters of said second tie line characteristics.
6. The line adapter of claim 4, wherein said second controller includes a mode select switch for selectively choosing a value of at least one of a plurality of parameters of said second tie line characteristics to cause said value of said at least one of a plurality of parameter to substantially match a value of said at least one of a plurality of parameters of said first tie line characteristics.
7. The line adapter of claim 4, wherein said first controller includes a mode select switch for selectively choosing a value of at least one of a plurality of parameters of said first tie line characteristics to cause said value of said at least one of a plurality of parameters to

substantially match a value of said at least one of a plurality of parameters of said second tie line characteristics and said second controller includes a mode select switch for selectively choosing a value of at least one of a plurality of parameters of said second tie line characteristics to cause said value of said at least one of a plurality of parameter to substantially match a value of said at least one of a plurality of parameters of said first tie line characteristics.

8. The line adapter of claims 5, 6 and 7, wherein said at least one of said plurality of input parameters is voltage.
9. The line adapter of claims 5, 6 and 7, wherein said at least one of said plurality of input parameters is impedance.
10. The line adapter of claims 5, 6 and 7, wherein said at least one of said plurality of output parameters is voltage.
11. The line adapter of claims 5, 6 and 7, wherein said at least one of said plurality of output parameters is impedance.
12. The tie line adapter of claims 5, 6 and 7, wherein said first controller comprises an input signal level controller and an input impedance controller for controlling input impedance into said adapter.
13. The tie line adapter of claims 5, 6 and 7, wherein said second controller comprises an output signal level controller and an output impedance controller for controlling the output impedance of said adapter.
14. A method for controlling a plurality of characteristics associated with a first tie line and a second tie line to allow communication between a pair of devices, said method including the steps of:  
associating said characteristics with input and output parameters of each of said tie lines; and  
adjusting said input parameter of said first tie line and adjusting said output parameters of the second tie line such that there is a substantial match between said characteristics of each of said tie line to facilitate efficient power transfer between said devices, said step of adjusting including the further steps of:

selectively choosing a value of at least one of a plurality of parameters of said first tie line characteristics to cause said value of said at least one of a plurality of parameter to substantially match a value of said at least one of a plurality of parameters of said second tie line characteristics; and

selectively choosing a value of at least one of a plurality of parameters of said second tie line characteristics to cause said value of said at least one of a plurality of parameter to substantially match a value of said at least one of a plurality of parameters of said first tie line characteristics.

15. The method of claim 14, wherein said at least one of said plurality of input parameters is voltage.
16. The method of claim 14, wherein said at least one of said plurality of input parameters is impedance.
17. The method of claim 14, wherein said at least one of said plurality of output parameters is voltage.
18. The method of claim 14, wherein said at least one of said plurality of output parameters is impedance.

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